Cisco CMX High Availability Commands

cmxha info

To view Cisco CMX high availability (HA) information, such as version, IP addresses, and so on, use the **cmxha info** command.

cmxha info

Syntax Description This command has no arguments or keywords.

Command Default None

Command Modes Admin root user

Command History

Release	Modification
Cisco CMX Release 10.3	This command was introduced.

Usage Guidelines This command should be run at the cmxadmin level.

Examples

The following example shows how to print Cisco CMX HA information:

```
[cmxadmin@CMXHAPrimary ~]$ cmxha info

Version                  : 10.3.0-599
Current Server Time      : Fri Mar 24 02:31:31 2017
State                    : Primary Not Configured
State Description        : Primary has not been configured with a secondary
State Last Updated Time  : Mon Nov  7 13:42:39 2016
Keepalived State         : Stopped
Keepalived Updated Time  : Mon Nov  7 13:42:39 2016
Role                     : PRIMARY
Primary IP Address       : 192.0.2.1
Secondary IP Address     :
Use Virtual IP Address   : True
Virtual IP Address       :
Failover Type            : Automatic Failover
Email Notify Address     :
--------------- Primary WLC Auth ---------------
MAC Address              :
SHA1 Key                 :
SHA2 Key                 :
-------------- Secondary WLC Auth --------------
MAC Address              :
SHA1 Key                 :
SHA2 Key                 :
--------------- System Information ---------------
Total Memory             : 25.0  GB
Total Disk               : 157.0 GB
Number of CPUs           : 8
--------------- Version Information ---------------
Redis Version            : 2.8.6
Postgres Version         : 9.3.11
Cassandra Version        : 2.1.13
```

cmxha config

To configure Cisco CMX high availability (HA), use the **cmxha config** command.

cmxha config{**disable**|**enable**|**modify**|{*email failover*}|**test**|{*email*}}

Syntax Description

disable	Disables CMX HA configuration.
enable	Enables CMX HA configuration.
modify	Modifies CMX HA configuration.
email	Enter the email address.
failover	Enter the failover type as either **Manual** or **Automatic**.
test	Tests the CMX HA configuration.
email	Sends a test email with current email settings.

Command Default

None

Command Modes

Admin root user

Command History

Release	Modification
Cisco CMX Release 10.3	This command was introduced.

Usage Guidelines

This command should be run at the cmxadmin level.

Examples

The following example shows how to enable CMX HA:

```
[cmxadmin@CMXHAPrimary ~]$ cmxha config enable

Are you sure you wish to enable high availability? [y/N]: y
Please enter secondary IP address: 192.0.2.1
Please enter the cmxadmin user password for secondary:
Do you wish to use a virtual IP address? [y/N]: y
Please enter the virtual IP address: 192.0.2.2
Please enter failover type [manual|automatic]: automatic
Please enter an email address(es) for notifications (Use space, comma or semicolon to
separate): email@cisco.com
Attempting to configure high availability with server: 192.0.2.1
Configuring primary server for HA
Configuring secondary server for HA
.....................................................................
Synchronizing Postgres data from primary to secondary
.........
Synchronizing Cassandra data from primary to secondary
.....................
```

```
Syncing primary files to secondary
Successfully started high availability. Primary is syncing with secondary.
```

cmxha secondary

To convert the system to a secondary server and display Cisco CMX high availability (HA) information, use the **cmxha secondary** command.

cmxha secondary
{ **convert | info** }

Syntax Description

convert	Converts the system to a secondary server.
info	Displays CMX HA information.

Command Default

None

Command Modes

Admin root user

Command History

Release	Modification
Cisco CMX Release 10.3	This command was introduced.

Usage Guidelines

This command should be run at the cmxadmin level. This command will retrieve the current information from the secondary server. If the current server is the primary server, this command will query the remote secondary server. If the current server is the secondary server, the local information is displayed. Use this command to display the server status in order to understand the remote status of the server.

Examples

The following example shows how to view secondary server information:

```
[cmxadmin@CMXHAPrimary ~]$ cmxha secondary info

Version                  : 10.3.0-600
Current Server Time      : Sun Apr  2 23:21:07 2017
State                    : Secondary Not Configured
State Description        : Secondary has not been configured with a primary
State Last Updated Time  : Thu Mar 30 21:58:25 2017
Keepalived State         : Stopped
Keepalived Updated Time  : Thu Mar 30 21:58:25 2017
Role                     : SECONDARY
Primary IP Address       :
Secondary IP Address     : 192.0.2.1
Use Virtual IP Address   : True
Virtual IP Address       :
Failover Type            : Automatic Failover
Email Notify Address     :
--------------- Primary WLC Auth ---------------
MAC Address              :
SHA1 Key                 :
SHA2 Key                 :
-------------- Secondary WLC Auth --------------
MAC Address              :
SHA1 Key                 :
SHA2 Key                 :
--------------- System Information ---------------
```

```
Total Memory             : 25.0  GB
Total Disk               : 156.0 GB
Number of CPUs           : 8
--------------- Version Information ---------------
Redis Version            : 2.8.6
Postgres Version         : 9.3.11
Cassandra Version        : 2.1.13
```

cmxha events

To view Cisco CMX high availability (HA) events, use the **cmxha events** command.

cmxha events

Syntax Description This command has no arguments or keywords.

Command Default None

Command Modes Admin root user

Command History

Release	Modification
Cisco CMX Release 10.3	This command was introduced.

Usage Guidelines This command should be run at the cmxadmin level.

Example

The following example shows how to view CMX HA events:

```
[cmxadmin@CMXHAPrimary ~]$ cmxha events

Time                       State                      Description
-------------------------------------------------------------------------------------------
Fri Dec  2 01:15:02 2016  Primary Configure Invoked Attempting to initialize primary server
Fri Dec  2 01:15:17 2016   Primary Syncing            Primary Syncing
Wed Dec 14 03:19:53 2016  Primary Initialize        Attempting to initialize primary server
Wed Dec 14 03:24:56 2016   Primary Syncing            Primary Syncing
Wed Dec 14 03:34:38 2016   Primary Active             Primary is actively synchronizing with
 secondary server
Wed Dec 14 03:34:38 2016  Primary Active            Successfully enabled high availability.
 Primary is sync
Wed Dec 14 04:00:02 2016  Primary Active           Service check failed for master. Attempt
 to restart ser
Wed Dec 14 04:02:01 2016  Primary Active           Service check succeeded for master after
 agent restart
Tue Dec 20 04:50:12 2016   Primary Disable Invoked   Attempting to disable high availability
Tue Dec 20 04:52:13 2016  Primary Disable Invoked   Successfully disabled high availability.
```

cmxha failover

To fail over to the secondary server, use the **cmxha failover** command.

cmxha failover

Syntax Description This command has no arguments or keywords.

Command Default None

Command Modes Admin root user

Command History

Release	Modification
Cisco CMX Release 10.3	This command was introduced.

Usage Guidelines The command prompts for confirmation and then initiates the failover to the secondary server.

Example

The following example shows how to initiate the failover to the secondary server:

```
[cmxadmin@CMXHAPrimary ~]$ cmxha failover

Are you sure you wish to failover to the secondary? [y/N]: y
Starting failover from primary to secondary server: 192.0.2.250
Syncing primary files to secondary
Configuring secondary server for Failover
Configuring primary server for Failover
Failover to secondary server has completed successfully
```

cmxha failback

To fail back to the primary server, use the **cmxha failback** command.

cmxha failback

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Admin root user

Command History

Release	Modification
Cisco CMX Release 10.3	This command was introduced.

Usage Guidelines

The command prompts for confirmation and then initiates the failback to the primary server. We recommend that you run this command from the web UI. Note that this command requires a considerable amount of time for execution.

Example

The following example shows how to initiate the failback to the primary server:

```
[cmxadmin@CMXHAPrimary ~]$ cmxha failback

Are you sure you wish to failback to the primary? [y/N]: y
Starting to failback to primary server from secondary server: 192.0.2.250
Starting to synchronize data from secondary to primary server
................................................................................
Completed synchronization of data from secondary to primary server
Starting to synchronize data from primary to secondary server
................................................................................
Completed failback to primary server
```

cmxha primary

To convert the system to a primary server and display CMX high availability (HA) information, use the **cmxha primary** command.

cmxha primary
{ **convert** | **info** }

Syntax Description

convert	Converts the system to a primary server.
info	Displays the CMX HA information.

Command Default

None

Command Modes

Admin root user

Command History

Release	Modification
Cisco CMX Release 10.3	This command was introduced.

Usage Guidelines

This command should be run at the cmxadmin level. This command will retrieve the current information from the primary server. If the current server is a secondary server, this command will query the remote primary server. If the current server is the primary server, the local information is displayed. Use this command to display the server status in order to understand the remote status of the server.

Example

The following example shows how to convert the system to a primary server:

```
[cmxadmin@CMXHAPrimary ~]$ cmxha primary convert

This command should be run when HA is disabled and not configured.  Are you sure you wish
to convert the system to a primary? [y/N]: y
Starting all services. This may take a while..
Started all services
Successfully completed primary convert
```

cmxha diag

To collect Cisco CMX high availability (HA) diagnostic information, use the **cmaxha diag** command.

cmxha diag collect

Syntax Description

collect	Collects logs and diagnostic information from the primary and secondary servers.

Command Default

None

Command Modes

Admin root user

Command History

Release	Modification
Cisco CMX Release 10.3	This command was introduced.

Usage Guidelines

This command should be run at the cmxadmin level.

Example

The following example shows how to collect CMX HA diagnostic information:

```
[cmxadmin@CMXHAPrimary ~]$ cmxha diag collect

Please enter a description for the diagnostic collection: collect
Collected local diagnostic files into file:
/opt/cmx/srv/cmx-ha-diags/cmx_ha_diag_192.0.2.1_2017-04-02.tar.gz
[cmxadmin@CMX-LowEnd-2 ~]$
```

cmxha filesync

To synchronize files between the primary server and the secondary server, use the **cmxha filesync** command.

cmxha filesync replicate

Syntax Description

replicate	Replicates files to the secondary server.

Command Default

None

Command Modes

Admin root user

Command History

Release	Modification
Cisco CMX Release 10.3	This command was introduced.

Usage Guidelines

This command should be run at the cmxadmin level. We recommend that you run this command with Cisco TAC assistance.

cmxha init

To configure high availability (HA) at startup, use the **cmxha init** command.

cmxha init

Syntax Description This command has no arguments or keywords.

Command Default None

Command Modes Admin root user

Command History

Release	Modification
Cisco CMX Release 10.3	This command was introduced.

Usage Guidelines This command should be run at the cmxadmin level. We recommend that you run this command with Cisco TAC assistance.

cmxha logging

To change or view the logging level of Cisco CMX high availability (HA), use the **cmxha logging** command.

cmxha logging {**config** { **debug | info** }|**status** }

Syntax Description

config	Changes the logging level of CMX HA.
debug	Sets the logging level to debug.
info	Sets the logging level to info.
status	Shows the current logging level.

Command Default

None

Command Modes

Admin root user

Command History

Release	Modification
Cisco CMX Release 10.3	This command was introduced.

Usage Guidelines

This command should be run at the cmxadmin level. We recommend that you run this command with Cisco TAC assistance.

Examples

The following example shows how to view the CMX HA logging level:

```
[cmxadmin@CMXHAPrimary ~]$ cmxha logging config info

Completed changing logging level to info
```

cmxha splitbrain

To manage the Cisco CMX high availability (HA) split-brain scenario, use the **cmxha splitbrain** command.

cmxha splitbrain
{ **info | use-primary | use-secondary** }

Syntax Description

info	Displays information about the CMX HA split-brain scenario.
use-primary	Uses the primary server in the split-brain scenario.
use-secondary	Uses the secondary server in the split-brain scenario.

Command Default

None

Command Modes

Admin root user

Command History

Release	Modification
Cisco CMX Release 10.3	This command was introduced.

Usage Guidelines

This command should be run at the cmxadmin level.

Examples

The following example shows how to view CMX HA split-brain scenario information:

```
[cmxadmin@CMXHAPrimary ~]$ cmxha splitbrain info

System is not in split-brain state currently
```

cmxha web

To enable or disable the high availability (HA) web services, use the **cmxha web** command.

cmxha web
{ **disable | enable | status** }

Syntax Description

disable	Disables the HA web service.
enable	Enables the HA web service.
status	Shows the status of the HA web services.

Command Default

None

Command Modes

Admin root user

Command History

Release	Modification
Cisco CMX Release 10.3	This command was introduced.

Usage Guidelines

This command should be run at the cmxadmin level. We recommend that you run this command with Cisco TAC assistance.

Examples

The following example shows how to view web service status:

```
cmxadmin@CMXHAPrimary ~]$ cmxha web status

Web service enabled      : True
Web service running      : True
```